

# Botulism

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## What is botulism?

Botulism is a rare, muscle-paralyzing disease caused by nerve toxin spores made by the bacterium *Clostridium botulinum*. The spores are found in soil worldwide. There are three main kinds of botulism: foodborne botulism, infant botulism, and wound botulism. Botulism toxin can also be used in a bioterrorist attack, released into the air or contaminating the food and water supply.

## What are the symptoms of botulism?

General symptoms of botulism include double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and muscle weakness which usually moves down the body from the shoulders to the feet. Paralysis of breathing muscles can cause a person to stop breathing and die, unless assisted by a ventilator.

For foodborne botulism, symptoms begin from six hours to 10 days after eating toxin-containing foods. Most commonly the delay is about 18-36 hours.

Infants with botulism appear tired, eat poorly, are constipated, and have a weak cry and limp muscles.

## How is botulism spread?

Foodborne botulism is usually due to incorrectly prepared or home-canned foods. Outbreaks from commercial products and foods prepared improperly in restaurants have also occurred. Foodborne botulism is especially dangerous because many people can be infected by eating the contaminated food.

Infant botulism occurs in a small number of at risk infants each year. For unknown reasons *C. botulinum* is able to grow in some infants' intestines.

Wound botulism is caused by the growth of living botulism bacteria in a wound, with ongoing secretion of toxin that causes the paralytic illness. In the United States, this syndrome is seen almost exclusively in injecting drug users.

Botulism is not spread person-to-person.

## How common is botulism?

In the United States, an average of 145 cases of botulism is reported each year. Of these, approximately 15% are foodborne, 65% are infant botulism, and 20% are wound botulism.

## What is the treatment for botulism?

Botulism can be treated with an antitoxin which blocks the action of toxin circulating in

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the blood. This antitoxin stops further development of the disease, but cannot reverse paralysis that is already present. The antitoxin is effective in reducing the severity of symptoms if administered early in the course of the disease. The Centers for Disease Control and Prevention (CDC) maintains the nation's supply of the antitoxin. A physician diagnosing a case of botulism must contact the CDC through their state health department in order to get the antitoxin. Public health officials must be contacted immediately about potential cases of botulism.

The respiratory failure and paralysis that occur with severe botulism may require patients to be on a ventilator, plus intensive medical and nursing care. After several weeks or months, the paralysis slowly improves.

### **Are there complications from botulism?**

Botulism can result in death due to respiratory failure; however the number of deaths has decreased dramatically in past years due to improved medical knowledge. Patients who survive an episode of botulism may have fatigue and shortness of breath for years and long-term therapy may be needed to aid recovery.

### **How can botulism be prevented?**

Foodborne botulism can be prevented by practicing safe home canning and food handling. Children less than 12 months old should not be given honey since it can contain spores from the bacteria. Wound botulism can be prevented by promptly seeking medical care for infected wounds and by not using injectable street drugs.

### **How do I get more information on botulism?**

Calhoun County Public Health Department  
Phone: (269) 969-6383

Centers for Disease Control and Prevention  
Website: <http://www.cdc.gov/nczved/divisions/dfbmd/diseases/botulism/>  
Phone: 800-CDC-INFO (800-232-4636)

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This fact sheet is meant to provide general health information and is not intended to be medical advice or otherwise take the place of your doctor's orders or to diagnose your specific health problems. Check with your doctor if you have any questions or concerns about your health.

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